

CLAIMS

I claim:

1. A tote conveyor system comprising:
 - a. a mounting platform,
 - b. a plurality of vertical support members of differing shapes and sizes and permanently attached perpendicularly to said mounting platform,
 - c. lateral support members attached perpendicularly to and on top of said vertical support members,
 - d. a horizontal positioning conveyor positioned between said lateral support members and at a height above said platform sufficient to permit a packing container moved by said positioning conveyor to clear the lower extremity of a vegetable discharge chute attached to an external spray-wash conveyor.
2. The tote conveyor system of claim 1 wherein said positioning conveyor is an externally powered conveyor belt.
3. The tote conveyor system of claim 1 wherein said positioning conveyor is a plurality of evenly-spaced parallel rollers positioned along the entire length of and between said lateral support members.

4. A tote conveyor system comprising:
 - a. a self-propelled spray-wash conveyor,
 - b. a mounted platform situated on a rearward-directed and cantilevered structural frame extension of said self propelled spray-wash conveyor,
 - c. a plurality of vertical support members of differing shapes and sizes and permanently attached perpendicularly to said platform,
 - d. lateral support members attached perpendicularly to and on top of said vertical support members,
 - e. an positioning conveyor belt driven by an external power source and positioned between said lateral support members and at a height above said platform sufficient to permit a packing container moved by said positioning conveyor belt to clear the lower extremity of a vegetable discharge chute attached to said self-propelled, spray-wash conveyor.
5. The tote conveyor system of claim 4 wherein said positioning conveyor is a plurality of evenly-spaced parallel rollers positioned along the entire length of and between said lateral support members.

6. The tote conveyor system of claim 4 further comprising:
 - a. two parallel downward-sloping conveyor belts adjacent to and at opposite ends of said positioning conveyor belt,
 - b. said downward-sloping conveyor belts positioned so that their lower edges terminate at a line immediately adjacent to and at a 90 degree angle to the right of the inboard edge of said positioning conveyor belt,
 - c. said downward-sloping conveyor belts utilizing the same source of external power source as said positioning conveyor belt,
 - d. said downward-sloping conveyor belts horizontally positioned between additional parallel lateral support members,
 - e. said additional lateral support members perpendicularly attached to and on top of additional vertical support members,
 - f. said additional vertical support members perpendicularly attached to said mounting platform,
 - g. safety shields created by the vertical upward extension of certain of said vertical support members and certain of said additional vertical support members,
 - h. curved tubular guide rails connecting the upper corner of the lower edge of said additional lateral support members to the nearest upper corner of said lateral support member supporting said positioning conveyor belt.

7. The tote conveyor system of claim 4 wherein said external power source is an externally compensated hydraulic drive system,
 - a. said externally compensated hydraulic drive system having an emergency means of terminating the flow of hydraulic fluid through said externally compensated hydraulic drive system,
 - b. said externally compensated hydraulic drive system having a means of controlling or throttling the pressure of hydraulic fluid flowing through said externally compensated hydraulic drive system and thereby controlling the speed of movement of said positioning conveyor belt.
8. A tote conveyor system comprising
 - a. a gravity-fed empty tote delivery system constructed of an angled series of metallic rollers that allow an empty tote to move downward along a guided path to a predetermined end-point;
 - b. a collection and filling platform which is said predetermined end point for said gravity-fed empty tote delivery system;
 - c. a conveyor belt assembly which moves a filled tote from said collection and filling platform to a position where said filled tote is physically forced off said conveyor belt assembly and on to a stationary platform,
 - d. an external source of power to drive said conveyor belt assembly.

9. A method of conveying totes comprising the steps of;
 - a. loading a transport receptacle onto a conveyor,
 - b. moving said transport receptacle along said conveyor to a filling station beneath a discharge chute,
 - c. allowing said transport receptacle to be filled with agricultural products from said discharge chute,
 - d. moving said transport receptacle to a removal and loading station,
 - e. loading the filled transport receptacle onto an external platform.